

# Work Order ID 66854

Tuesday, March 01, 2011 8:03:46 AM



Page 1

Item ID: D3480-041

Accept



Setup Start



Revision ID:

Item Name: Eyeball Inlet Adapter

Stop



Start Date: 3/1/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 3/7/2011 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

*Handwritten signature*

Date: 11-03-1

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3480

Rev C

100

0.00



Small Fab

Small Fab

Memo

0.00

Small Fab

1-Spot weld as per dwg D3480  
2-Cut tube flush as per dwg D3480  
3-Debur

*Handwritten: 7m, 11/03/10*

110

QC11- Inspect spot weld per QSI004

0.00



QC

Memo

0.00

Quality Control

*Handwritten: SB 11/03/10*

*Handwritten: 2*

120

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

*Handwritten: SB 11/03/10*

*Handwritten: 2*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 66854**

Tuesday, March 01, 2011 8:03:46 AM

Page 2

Item ID: D3480-041

Accept

Revision ID:

Item Name: Eyeball Inlet Adapter

Start Date: 3/1/2011 Start Qty: 2.00

Required Date: 3/7/2011 Req'd Qty: 2.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

Identify as per dwg & Stock Location: U1

0.00



Packaging

Memo

0.00

Packaging

11/3/10 2

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/3/10 211-03-10 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Tuesday, March 01, 2011 8:03:54 AM

Page 1

Work Order ID: 66854

Parent Item: D3480-041

Parent Item Name: Eyeball Inlet Adapter



Start Date: 3/1/2011

Required Date: 3/7/2011

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP rev. A 06.02.07 new issue EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3480-3  Tube		Manufactured	No			100	Each	1.0000	1	2		SB 11/03/10	
---	--	--------------	----	--	--	-----	------	--------	---	---	--	-------------	--

Location

Loc Qty

Loc Code

ST064


1

1367124

①

54718

1

D3480-5  Eyeball Adapter Flange		Manufactured	No			100	Each	4.0000	1	2		SB 11/03/10	
---	--	--------------	----	--	--	-----	------	--------	---	---	--	-------------	--

Location

Loc Qty

Loc Code

ST061

3

65490

3

2

ST064

1

64666

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

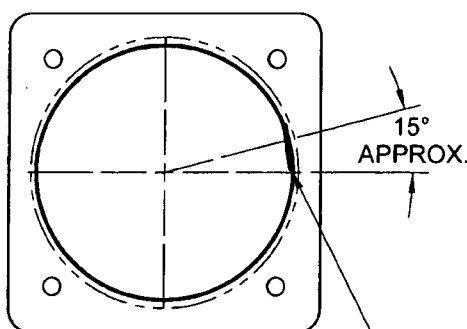
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

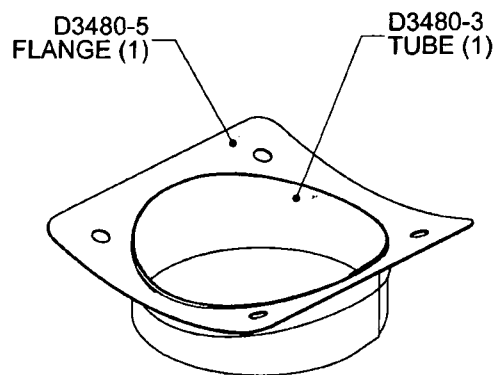


DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3480	REV. C SHEET 1 OF 6
DATE 08.12.19		TITLE EYEBALL ADAPTER	SCALE 1:2
A	06.02.06	NEW ISSUE	
B	06.08.29	D3480-3 0.50 was 0.40/D3480-3F 8.930 was 9.330	
C	08.12.19	D3480-3 PICTORIAL CHG PER D3480-3F (SHT 1 & 4); ADD/REV TOL (SHT 3-5); ADD MFG NOTE (SHT 4); MATL SPEC WAS MIL-S-5019	

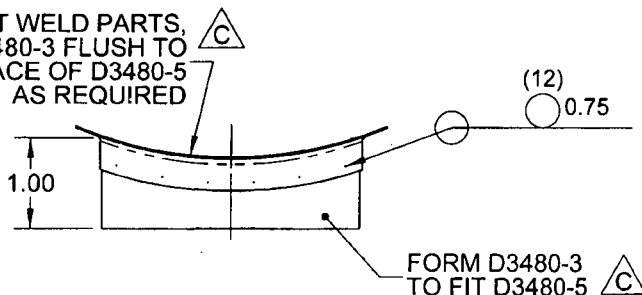
RELEASE  
09/01/30 M/D



ALIGN WELD  
SEAM OF D3480-3  
AS SHOWN



SPOT WELD PARTS,  
TRIM D3480-3 FLUSH TO  
SURFACE OF D3480-5  
AS REQUIRED



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 00857

011-03-1

### D3480-041 EYEBALL INLET ADAPTER

#### NOTES:

- 1) SPOT WELD PER DART QSI 004
- 2) FINISH: NONE
- 3) IDENTIFY WITH DART P/N D3480-041 USING FINE POINT PERMANENT INK MARKER
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -041	P/N	DESCRIPTION
X	D3480-041	EYEBALL INLET ADAPTER
1	D3480-3	TUBE
1	D3480-5	FLANGE

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

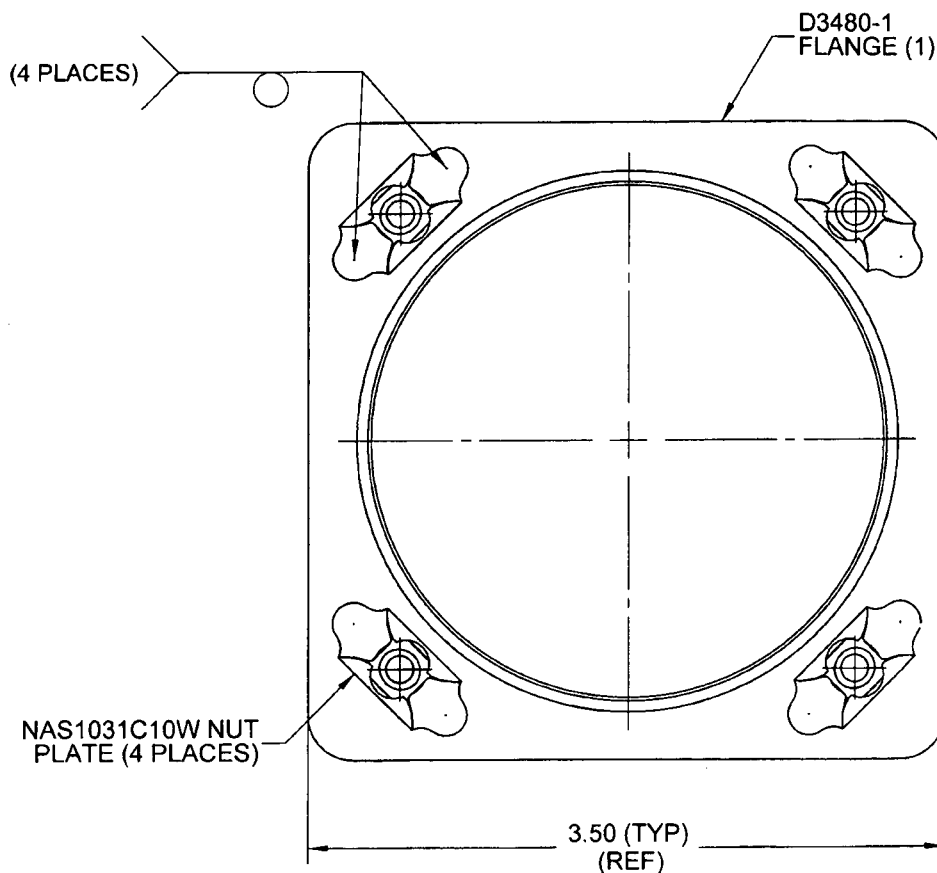
**NOTE:** Date & initial all entries





DESIGN	DRAWN BY	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>PH</i>	APPROVED <i>PH</i>	DRAWING NO. <b>D3480</b>	REV. C SHEET 2 OF 6
DATE <b>08.12.19</b>	TITLE <b>EYEBALL ADAPTER</b>		SCALE 1:1

**RELEASE**  
9/10/30 MBL



who 64854

**D3480-043 EYEBALL ADAPTER**

**NOTES:**

- 1) SPOT WELD PER DART QSI 004
- 2) FINISH: NONE
- 3) IDENTIFY WITH DART P/N D3480-043 USING FINE POINT PERMANENT INK MARKER
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -043	P/N	DESCRIPTION
X	D3480-043	EYEBALL ADAPTER
1	D3480-1	FLANGE
4	NAS1031C3W	NUTPLATE

**COPYRIGHT © 2006 BY DART AEROSPACE LTD.**

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

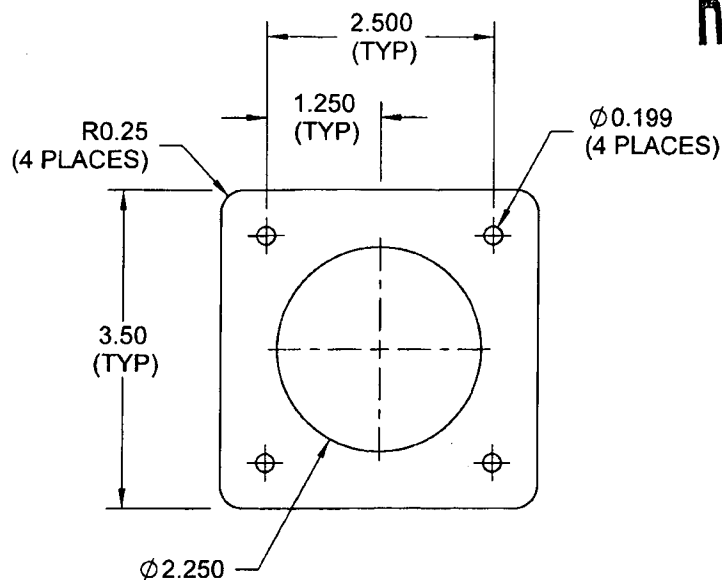
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

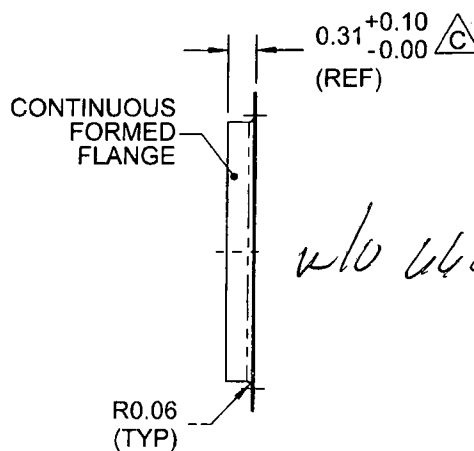
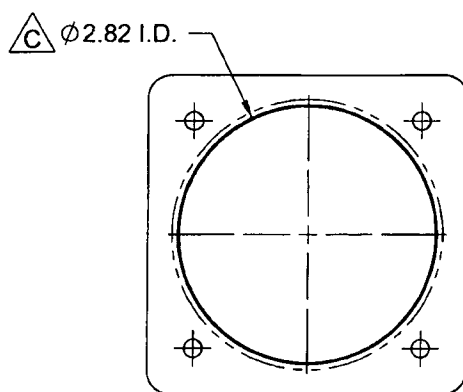


DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3480	REV. C SHEET 3 OF 6
DATE 08.12.19		TITLE EYEBALL ADAPTER	SCALE 1:2

RELEASED  
9/21/20 MP



**D3480-1F FLAT PATTERN**



**D3480-1 FLANGE**  
(MAKE FROM D3480-1F)

**NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5059 (ANNEALED) 2B FINISH  $\triangle C$   
OR AMS 5513/5524, 26 GAUGE SS (0.018 THICK)  
(REF. DART SPEC. M304S26GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

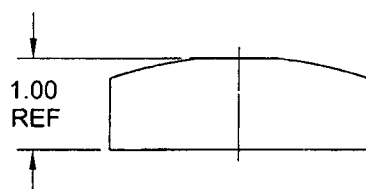
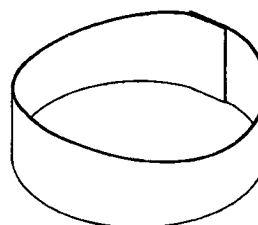
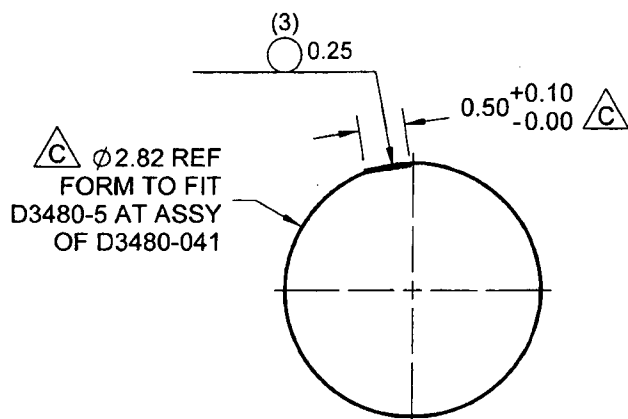
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



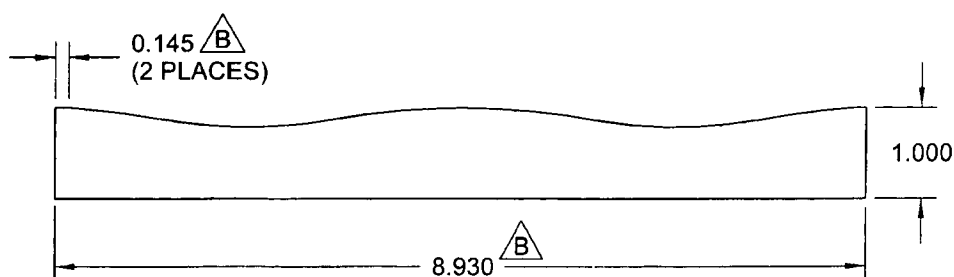
DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3480	REV. C SHEET 4 OF 6
DATE 08.12.19		TITLE EYEBALL ADAPTER	SCALE 1:2

RELEASE  
09/01/30 MD



### D3480-3 TUBE

W/O 66854



### D3480-3F TUBE FLAT PATTERN

#### NOTES:

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5059 (ANNEALED) 2B FINISH  $\triangle C$   
OR AMS 5513/5524, 26 GAUGE SS (0.018 THICK)  
(REF. DART SPEC. M304S26GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

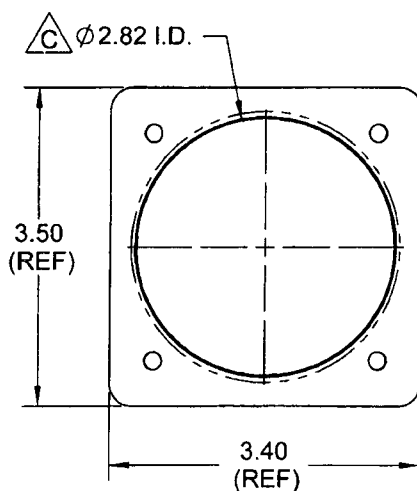
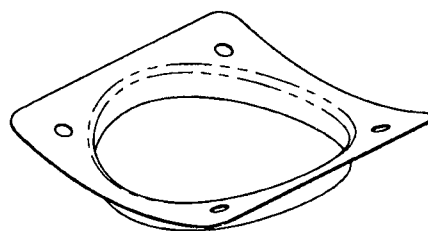
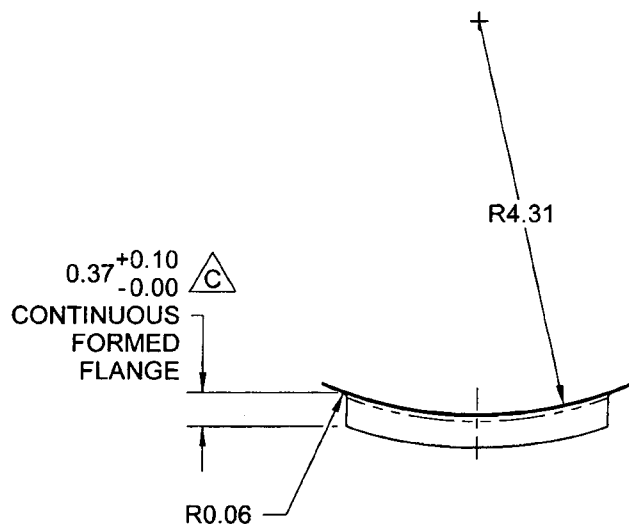
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3480	REV. C SHEET 5 OF 6
DATE 08.12.19		TITLE EYEBALL ADAPTER	SCALE 1:2

RELEASED  
9/6/30 M/D



u/o 66854

### D3480-5 EYEBALL ADAPTER FLANGE

#### NOTES:

- 1) MATERIAL: MAKE FROM D3480-1F
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

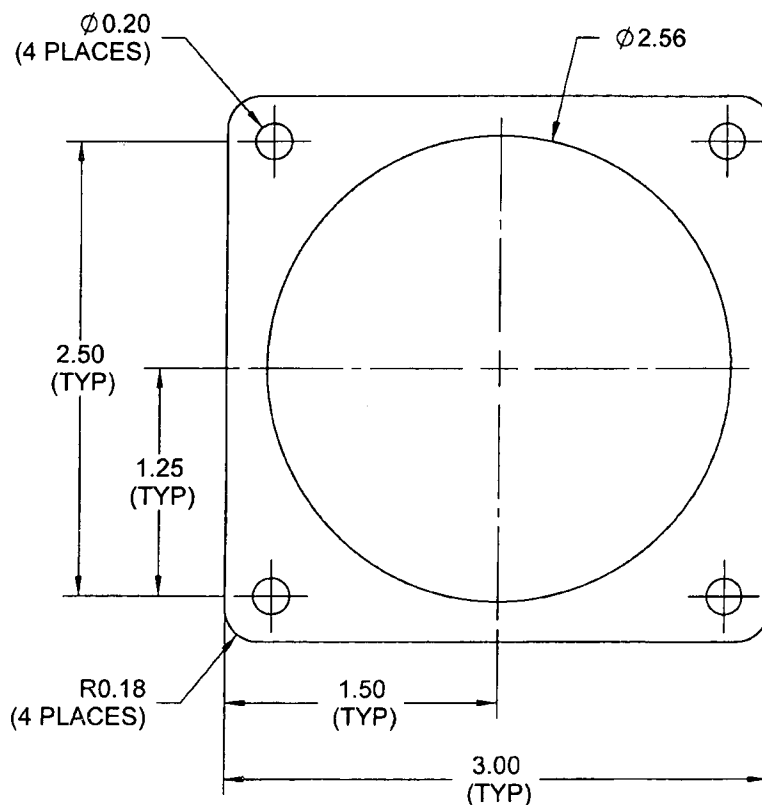
**NOTE:** Date & initial all entries





DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>PA</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3480	REV. C SHEET 6 OF 6
DATE 08.12.19		TITLE EYEBALL ADAPTER	SCALE 1:1

RELEASED  
9/6/30 MP



u/c 66854

### D3480-7 GASKET

#### NOTES:

- 1) MATERIAL: RED (OR GRAY) 60 DUROMETER HI-TEMPERATURE SILICONE SHEET, 0.125" THICK (REF. DART SPEC. M-SIL60-125)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

COPYRIGHT © 2006 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# SPOT WELD TEST RECORD

AMS-W-6858A

CLASS 'C'

TEST NO#: 95

EMPLOYEE: Marc Gregory

PART NUMBER: D 3480-041

JOB NUMBER: B 66357

MATERIAL TYPE: 304 L

MATERIAL THICKNESS: .019

GROUP SPECIFICATION



Group 1: Aluminum & magnesium



Group 2: Iron; nickel; cobalt



Group 3: Titanium SS

## TEST RESULTS

	PASS	FAIL
VISUAL:	[ <input checked="" type="checkbox"/> ]	[ <input type="checkbox"/> ]
PENETRATION:	[ <input checked="" type="checkbox"/> ]	[ <input type="checkbox"/> ]
PULL STRENGTH:	[ <input checked="" type="checkbox"/> ]	[ <input type="checkbox"/> ]

PSI Reading: \_\_\_\_\_

Qualified in accordance with standard AMS-W-6858A and QSI 004 (ref: 4.3)

DATE OF TEST COUPON: 11/03/10  
QUALIFIER: SS